SENTINELTM

Installation & Operation Instructions

SENTINEL Injection Quills are designed to safely and efficiently disperse chemicals into process pipelines. Chemicals are injected directly and evenly into the center of the process flow away from the pipe wall and where flow velocity is highest. This direct injection into the center of the flow avoids chemical contact with pipe walls and ensures more even mixing with the process fluid. The integral spring-loaded check disk prevents backflow of pressurized process fluid into the chemical feed when the pump is off or the chemical feed is disconnected.

- Turn pump off and remove all pressure from system prior to installation.
- Remove all pressure from injection quill AND pumping system before disassembly, removal or maintenance.

DO NOT exceed 150 psi maximum allowable working pressure (MAWP).

- Always wear safety glasses and other appropriate safety equipment when installing, operating or repairing.
- Read and observe all safety warnings and instructions before installation, operation or repair.

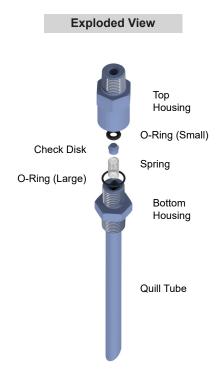
Installation

- 1. Remove all pressure from system and isolate pipe.
- 2. Ensure quill tube will disperse fluid near the center of pipe. Trim quill tube length if necessary.
- 3. Insert quill tube into pipe or port with angled end facing toward the direction of fluid flow for optimal chemical distribution. The spring-loaded check disk allows for installation in any position along pipe.
- 4. Using flats on bottom housing, thread injection quill to pipe or port by turning clockwise until hand tight.
- 5. Thread chemical connection into top housing and hand tighten.

Maintenance

Prior to cleaning or maintenance, isolate injection quill from system. Disconnect injection quill and completely remove from system. O-rings should be replaced on each reassembly.

- 1. Remove all pressure from injection quill AND pumping system, and disconnect chemical feed from top housing.
- 2. Using flats on bottom housing, unthread injection quill from pipe or port by turning counterclockwise.
- 3. Carefully unthread bottom housing from top housing to separate and expose internal parts.
- 4. Inspect and replace worn parts. Replacement parts are available from Blacoh.
- 5. Carefully thread bottom housing to top housing by turning clockwise until hand tight.



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